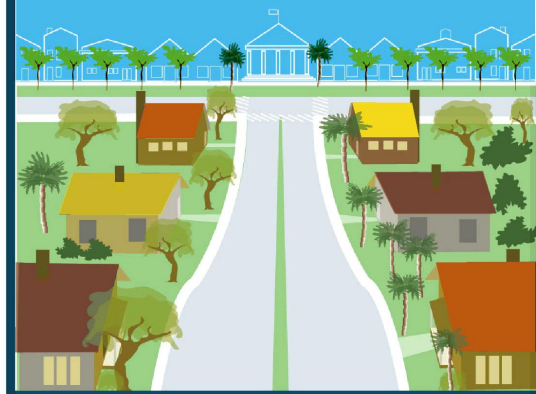


# Northern Beaufort County Multi-modal Transportation Network

Application for funding through  
Bus and Bus Facilities  
Livability Initiative  
Program



Beaufort County  
South Carolina



# 1 Applicant Information

## Area Description

**Type of Project:** Transit, Multi-modal Transportation

**Location of Project:** Beaufort County, South Carolina

**Congressional District:** South Carolina's 2<sup>nd</sup> Congressional District

**Type of Area:** Rural

**Bus and Bus Facilities Livability Initiative Program Grant Funds**

**Requested:** \$24,700,000

**DUNS Number:** 141608690

**EIN:** 57-6000311

**Contact Information:**

Robert Merchant, AICP, Long Range Planner  
County Administration Building  
100 Ribaut Road, PO Drawer 1228  
Beaufort, SC 29901-1228  
Phone: (843) 470-2722  
Fax: (843) 470-2731  
robm@bcgov.net

**Description of services provided by agency:** Beaufort County, the applicant for the Bus and Bus Facilities Livability Initiative Program, will purchase and install the buses, shelters, signage and other items for the fixed-route transit service; and will serve as project manager overseeing the construction of the multi-use trail and pedestrian connectors. The County has its own engineering, planning, and public works departments and has considerable experience in overseeing projects of this size.

Palmetto Breeze (formerly Lowcountry Regional Transit Authority) will own and operate the proposed fixed route transit service. Palmetto Breeze is the public transit provider for Beaufort County and the surrounding region (Jasper, Allendale, Colleton and Hampton Counties). Palmetto Breeze was established in 1978 and is legally designated by the State as a Regional Transportation Authority under Chapter 25 (58-25-10). Palmetto Breeze is managed by First Transit, the largest transit management company in the country and has four First Transit managers on site. Palmetto Breeze has an annual budget of approximately \$2.5 million. Palmetto Breeze has historically focused on bringing rural residents to jobs in Beaufort County via fixed route commuter lines taking commuters to their workplaces in the morning and returning them to their communities in the evening. The existing garage in Bluffton will be utilized to clean and maintain the vehicles. LRTA will also own and maintain the transit shelters, signage and other capital improvements associated with the proposed fixed route transit service. In FY 2009 Palmetto Breeze had 23 active vehicles providing more than 172,823 passenger trips and 33 full time and part time employees. Palmetto Breeze receives federal rural transit funding under the Federal Transit Administration (FTA) Section 5311 funding program. Local funding is provided by the five member counties with over 76% of the contributions coming from Beaufort County and the Town of Hilton Head Island.

## 2 Project Information

### Area Description

Northern Beaufort County, located in coastal South Carolina, is home to the historic City of Beaufort, the Town of Port Royal, and several military installations including the Beaufort Marine Corps Air Station (MCAS) and the Marine Corps Recruit Depot at Parris Island. This region has experienced a tremendous transformation over the last 50 years from a largely rural and agricultural region with a small county seat, to an urbanizing community with a diverse local economy dominated by the military, tourism, educational and medical facilities, and the construction industry. Current population estimates place the region at just over 80,000 persons. Prevailing suburban development patterns, along with the region's unique island geography and lack of a fixed route bus service have rendered a vast majority of residents dependent on private automobiles for the most basic of errands. This automobile dependency has led to traffic congestion and the disenfranchisement of the region's most vulnerable population segments – those too old or too young to drive, the disabled, and those living below the poverty level. Over the next 20 years, northern Beaufort County is projected to grow by over 50% to over 120,000 persons, putting further strain on the region's transportation network and further exacerbating the inherent inequities of relying on a single mode of transportation.

### Project Description

This project is designed to accomplish the transformation of northern Beaufort County from a region dominated by a single mode of transportation to a region that offers transportation choices that are accessible to all residents. There are three components to this project:

- 1) Providing a fixed-route transit service that links a majority of northern Beaufort County residents to the region's major employers, shopping areas, and services;
- 2) Construction of the first phase (6.7 miles) of a multi-use trail on the right-of-way of the former 25 miles Port Royal to Yemassee Railroad; and
- 3) Construction, repair, and reconfiguration of over 13 miles of sidewalks and multi-use pathways to promote safe network continuity by connecting the multi-use trail and transit routes to major employers, commercial districts, schools, and residential areas.

## Fixed Route Transit Service

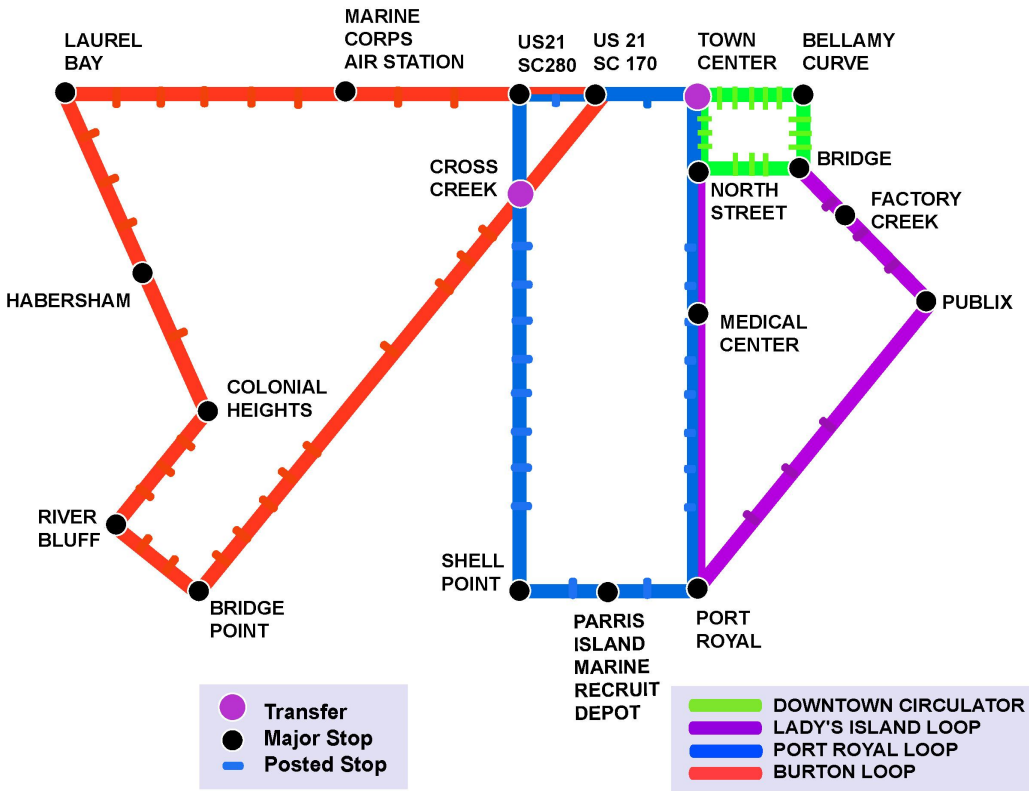
The route system was designed along a very practical principle – go to and from the locations where the largest numbers of potential passengers and members of target markets live, work, shop, study and visit. There will be four major routes, one express route (a sub-route of one of the major routes), and one special purpose route operating on Thursdays and Fridays to take family members to US Marine Corps recruit graduations or family days at Parris Island, as well as to serve as an internal circulator service that will run from the Parris Island gate to destinations within. There will be free transfers among all the routes, with convenient transfer points equipped with shelters. The attached map **[Map A]** and the following descriptions provide additional information about the routes.

**Planned Routes:** The following table describes the characteristics of the six planned routes.

### Fixed Route Transit Service Route Descriptions

Route	Description
Downtown Circulator	Connects downtown Beaufort to the University of South Carolina Beaufort Campus and to the Municipal and County Government complexes. There will also be a park and ride service for special events. The loop would be available every 15-20 minutes on weekdays with longer hours on the weekends.
Lady's Island Loop	Originating at the Transfer Center at Beaufort Town Center this route provides access to Lady's Island, Beaufort Memorial Hospital and the Technical College of the Lowcountry (TCL). Estimated time is a 45-minute round trip with wait times less than 30 minutes. The service would run from 6 a.m. to 10 p.m. to serve the needs of the hospital staff and TCL students.
Port Royal Island Loop	Originating at the Transfer Center at the Cross Creek Shopping Center, where Wal-Mart, a major employer and shopping destination, is located. This route would also serve TCL, the Beaufort Memorial Hospital medical complex, the Beaufort Naval Hospital and Parris Island. It is anticipated that the loop would take about one hour and run from 7 a.m. to 7 p.m. with wait times of less than 30 minutes.
Burton Loop	Originating at the Transfer Center at the Cross Creek Shopping Center and serving Laurel Bay/Capehart housing (military housing), the Marine Corps Air Station and the hotels along US 21 and SC 170. Wait times are approximately 30 minutes.
Laurel Bay, MCAS, and Parris Island Express Routes	Originating at the Laurel Bay/Capehart military housing complex and providing express service to the two military facilities. Service would be limited to early morning and early evening to complement the user's work schedules.
Parris Island Graduation Express	Limited to family day (Thursday morning) and graduation (Friday morning) and would travel between the hotels along US 21, Ribaut Road, downtown Beaufort and Parris Island.

# Fixed Route Transit Service Route Schematic



**Equipment:** The following table describes the capital purchases associated with the proposed transit service. All vehicles, shelters, and other improvements will be compliant with the Americans with Disabilities Act (ADA). The fifteen electric cutaway vehicles will feature wheelchair accessibility, handrails, kneeling bus to facilitate easy ingress and egress, bike racks, electronic fare boxes, permission of service animals, and free rides for caregivers. An ADA compliant website will also be available for users.

### Fixed Route Transit Capital Needs

Equipment	Quantity	Description
Transit Vehicles	15	22-passenger hybrid vehicles
Major Shelters	8	Fully enclosed, 800 sq.ft. in area, restrooms, air conditioning, electronic real-time arrival/departure signs
Minor Shelters	16	Plexiglas enclosed, 150 sq.ft. in area, electronic real-time arrival/departure signs
Transit Signage	150	Reflective, break-away bus stop signs

**Complementary Paratransit Service:** As required by federal law, complementary paratransit services would be provided within  $\frac{3}{4}$  mile along the proposed fixed routes for those that qualify.

**Intelligent Transportation System Features:** The proposed transit service will incorporate the latest ITS technology to provide ease of use to the passengers, the bus drivers, and the dispatchers. ITS Features will include:

- Vehicle Logic Units
- Automated Passenger Counting (2-Door)
- Mobile Data Terminals
- Engine telemetry
- CAD/AVL System
- Farebox Integration
- Solar-powered real-time transit signs
- Wireless Communications
- Web Portal
- Smart-Card readers and software
- Automated Stop Enunciator System

### Fixed-Route Transit Service Budget

Activity	Local Match	Grant Bus and Bus Facilities Initiative Program
Bus Stop and Shelter Construction		\$ 3,700,000
Rolling Stock		\$ 2,260,000
Route Analysis and Marketing		\$ 680,000
Land for Transit Transfer Center*	\$238,000	
<b>Sub-total</b>	<b>\$238,000</b>	<b>\$ 6,640,000</b>

\* Land donation at Beaufort Town Center

## Multi-use Rail-Trail

Complementing the fixed route transit system, another key component to the mobility of this area is the rail-trail for bicycles and pedestrians. This 6.7-mile section of the 25-mile rail-trail (Phase 1) travels from Port Royal through Beaufort to the Marine Corps Air Station. This corridor is in the federal rail bank and has 100 – 200 feet of available right-of-way. The rails and ballast will be removed by Beaufort Jasper Water Sewer Authority (BJWSA) to accommodate the construction of the 15-foot wide asphalt trail. BJWSA will utilize the right-of-way for water and sewer lines, and is fully supportive of the use of the surface of the corridor for a multi-use trail. To maximize the transportation connectivity in the community, there are two primary and three secondary trailheads planned. The primary trailheads will be at the termini of Phase I, in Port Royal and at the Marine Corps Air Station, with secondary trailheads at key access points along the trail. Each trailhead will have restroom facilities, trash receptacles, water fountains, bicycle racks and benches for the users. Solar powered security call stations will be placed every ½ mile.



**Emergency Vehicle Access:** Adding further connectivity to the transportation system, a portion of the rail-trail will be designed to allow emergency vehicle access in the event of congestion or incidents on US 21 which runs parallel to the rail-trail. This area has limited roadway infrastructure due to the significant marsh and wetland areas. As a result, US 21 crosses a narrow band of land that creates a choke-point with high levels of congestion. This planned connection will provide another route when incidents occur and during hurricane evacuation to aid in quick and efficient access of emergency vehicles.

## Multi-Use Rail-Trail Budget

Activity	Local Match	Grant Bus and Bus Facilities Initiative Program
Rail Trail R/W Acquisition by BJWSA	\$ 3,000,000	
Removal and disposal of railroad ties, rail and ballast (BJWSA)	\$ 540,000	
Engineering & Inspection		\$ 1,300,000
Pathway Construction		\$ 6,240,000
Trail Head Construction		\$ 1,200,000
Land for Port Royal Trail Head*	\$379,000	
<b>Sub-total</b>	<b>\$3,919,000</b>	<b>\$ 8,740,000</b>

\*Land donation at Sea Island Apartments on Ribaut Road in Port Royal

## Connecting Pathways

The third major component of the multi-modal transportation network provides important connectivity between the rail-trail, transit routes and the residential/commercial areas the network is intended to support [Map B]. High levels of utilization for transit and rail-trails are directly linked to safe and efficient access. The existing inventory of over 70 miles of sidewalks and pathways were reviewed to determine key connections that should increase the mobility and access of the transportation network. The existing inventory of sidewalks was also evaluated to identify segments in need of repair due to broken/missing section and/or ADA compliance.

### Connecting Pathways Summary of Improvements

	Description	Quantity
<b>Sidewalks</b>	New Construction	5.7 miles
	Repair/Rebuild	2.0 miles
	ADA Upgrades	150 locations
<b>Multi-use Pathways</b>	New Construction	1.7 miles
	Repair/Rebuild	3.6 miles
	ADA Upgrades	25 locations
<b>Totals</b>		<b>13 miles</b>

### Connecting Pathways Budget

Activity	Local Match	BUS AND BUS FACILITIES LIVABILITY INITIATIVE PROGRAM Grant
Sidewalks and bike lanes on Savannah Highway and Lady's Island Drive	\$4,600,000	
Engineering and Inspection		\$ 730,000
Right-of-way Acquisition		\$ 3,810,000
New Sidewalk Construction		\$ 1,840,000
New Multi-use Pathway Construction		\$ 540,000
Upgrade and Repair of Existing Sidewalks		\$ 1,090,000
Upgrade and Repair of Existing Pathways		\$ 1,310,000
<b>Sub-total</b>	<b>\$4,600,000</b>	<b>\$ 9,320,000</b>



## Project Timeline

The transit service will begin within 6 months to a year upon receipt of funds. The entire project, including trail facilities and pathways will be completed in the 3<sup>rd</sup> quarter of 2012.

Northern Beaufort County Multimodal Transportation Network Timeline										
		3rd Qtr 2010	4th Qtr 2010	1st Qtr 2011	2nd Qtr 2011	3rd Qtr 2011	4th Qtr 2011	1st Qtr 2012	2nd Qtr 2012	3rd Qtr 2012
Transit	Operations and Business Plans									
	Marketing, Promotional and Traffic Plans									
	Acquisition of Equipment, Installation of Bus Shelters and Training									
	Phase In Bus Service									
	Monitor/Modify Service									
	Environmental Assessment and Horizontal Engineering									
Rail Trail	Structural/Vertical Engineering									
	Permitting									
	Construction									
	Sidewalk and Pathway Design									
Pathways	Permitting									
	Right-of-way Acquisition									
	Construction									

## Documentation of Matching Funds

There are three sources of local match funds for this project. The documentation for these local matches is included in **Attachments A1 and A2** of this grant application.

### Port Royal Railroad Right-of-way

The first match is the purchase of the railroad corridor for \$3 million by the BJWSA which was completed on November 6, 2009. A 6.7 mile section of this corridor will be used for the multi-use trail in the transit program. See **Map B**, Location of Multi-Use Trail and Connecting Pathways. A Closing Statement for the Port Royal Railroad Corridor between South Carolina State Ports Authority and Beaufort Jasper Water and Sewer Authority is included in **Attachment A1**.

## **SC 802 Sidewalks and Bike Lanes**

The second match is a vital multimodal component to this project – the addition of sidewalks and bicycle lanes as part of the widening of SC802. This component is important because it provides a much needed pedestrian link across the Beaufort River on the McTeer Bridge. The sidewalks and bikeway portion of both projects are estimated to be \$4.6 million or about 10% of the total cost of \$45 million. The funding for these projects was provided by a 1-cent local option sales tax. The payment bond for SC 802 Widening Project and also the SC 802 Bridge expansion is included as documentation of matching funding in **Attachment A2**.

## **Land Donations for Transit Transfer Center and Port Royal Trailhead**

The third match consists of two land donations from two private sources. The first land donation from 303 Associates, L.L.C. is 0.4 acres located at Beaufort Towne Center for use as a transit transfer center. The second donation is 0.6 acres located at the southern terminus of the 6.7-mile multi-use in Port Royal. Documentation of this source is provided in **Attachment A2**.

# 3 Project Meets Evaluation Criteria

## Demonstrated Need for Resource

Northern Beaufort County is primarily dominated by one mode of transportation and is in need regular transit service and connecting pathways to provide transportation choices to residents. Significant geographic and environmental constraints limit the expansion of the region's road network, the region's primary transportation mode, to accommodate projected population growth. A growing number of County residents do not have access to automobiles or cannot drive and therefore have limited options for getting to available jobs. Due to this need, there is broad-based support to establish a fixed-route transit service and connecting pathways. This support includes region's major employers – the U.S. Marine Corps, Beaufort Memorial Hospital, the Technical College of the Lowcountry, and Beaufort County.

### Need for FTA Funding

This project represents a one-time need that cannot be funded from the FTA program fund allocations or from local sources. In FY 2009, Palmetto Breeze received \$978,000 in 5311 funds. In past years this allocation has ranged from \$300,000 to \$1,000,000 annually. These funds primarily fund operations and maintenance costs and are only occasionally used for capital purchases. The nearly \$6 million in capital purchases to initiate a fixed-route transit service in northern Beaufort County far exceeds this annual allocation.

### Project will have significant impact on service delivery

This project will have a significant impact on service delivery by providing a service that does not currently exist in northern Beaufort County. At present there is no regular transit service in northern Beaufort County. Palmetto Breeze current bus routes are designed to bring rural residents to jobs on Hilton Head Island in southern Beaufort County with a bus leaving in the morning and one returning in the evening. Currently, the only transit option available to residents wishing to access jobs, services and shopping in northern Beaufort County is through Palmetto Breeze's On-call Transit Service.

## Planning and Prioritization at Local/Regional Level

### Project is consistent with Long Range Transit Plans

**Transit Studies and Plans:** Since 2002 the Lowcountry Council of Governments (LCOG) has completed a number of public transit studies and planning projects, with funding provided by the FTA and the SCDOT, that have determined that a significant population in Northern Beaufort County either needs transit or is likely to use it if new or enhanced services become available. Similar routes to those

in this project were proposed in these studies. Some of the results are summarized in the table below.

<b>2004-2005 Vanpool Feasibility Study</b>	<ul style="list-style-type: none"> <li>■ 41% of employers said that they had employees with transportation problems</li> <li>■ 59% of employers said that they would be interested in promoting new transportation services to their employees</li> </ul>
<b>2008 University of South Carolina Beaufort (USCB) Survey: Summary of Resident Responses</b>	<ul style="list-style-type: none"> <li>■ 86% believe there is a need for public transit</li> <li>■ 61% of Lowcountry residents will use public transit one or more times per week</li> <li>■ 34% will use it if they had no other options and 5% of residents would not use public transit</li> <li>■ 52% will use public transit for work, while 40% would use it for grocery shopping</li> <li>■ 56% favor public transit running every 15-30 minutes</li> <li>■ 76% will pay \$3.00 or less per one-way trip</li> <li>■ 8% require door-to-door service due to a disability</li> </ul>
<b>2008 USCB Survey: Summary of Visitor Responses</b>	<ul style="list-style-type: none"> <li>■ 82% believe there is need for public transit</li> <li>■ 86% of visitors would use public transit on vacation</li> <li>■ 71% favor public transit running every 15-30 min.</li> <li>■ 80% will pay \$3.00 or less per one-way trip</li> </ul>
<b>2009 Chambers of Commerce, USCB, survey for Northern Beaufort County</b>	<ul style="list-style-type: none"> <li>■ 79% of visitors consider the availability of public transportation either very important or somewhat important in choosing a vacation destination</li> <li>■ 78% strongly agree or somewhat agree that hotels, resorts and vacation destinations should provide access to public transportation</li> </ul>

**Comprehensive and Regional Plans:** In 2007, Beaufort County, the City of Beaufort, and the Town of Port Royal adopted the Northern Beaufort County Regional Plan. The transportation chapter of this plan recognized that simply building more roads to accommodate future population growth was cost prohibitive and limited by environmental and fiscal constraints. Therefore, the plan recommended a three-pronged approach to reduce vehicle miles traveled (VMTs) and maximize the efficiency of its existing road network to minimize the need for future road widenings:

- 1) Promote access management policies to maximize the efficiency of the region's transportation network by maximizing signal spacing; coordinating and timing signals; maximizing intersection and driveway spacing, etc.
- 2) Revise land use policies to create more pedestrian friendly, mixed-use, and interconnected communities.
- 3) Promote other modes of transportation – walking, cycling and public transportation to provide transportation choices and reduce VMTs.

This project addresses the third prong of this approach – expanding transportation choices and providing broader traveler mobility in northern Beaufort County. Beaufort County, the City of Beaufort, and the Town of Port Royal are actively

pursuing all three of these policies. The purpose of this project is to offer diverse transportation options that are effectively integrated in order to provide a high degree of accessibility for all County residents, reduce energy consumption and greenhouse gas emissions, reduce traffic congestion, and promote safety and fitness.

### **State Support for Project**

This project meets many of the goals of the South Carolina Statewide Transit Plan completed in May 2008. The Statewide Transit Plan supports the development of commuter based transit services, especially in underserved rural areas where there is a large gap between transit demand and transit availability. The plan also specifically recommends the need to provide transportation alternatives to the elderly, which represent a growing segment of the State's population. Finally, the plan recognizes the importance of fighting sprawl by integrating land use and transportation land use strategies. This project is being submitted as part of a consolidated application coordinated by the South Carolina Department of Transportation (SCDOT) on behalf of rural applicants with proposals that meet the basic principles that establish the foundation for the USDOT and Department of Housing and Urban Development, and Environmental Protection Agency partnership for sustainable communities.

### **Local Support for Project**

The Northern Beaufort County Transit Task Force consists of a broad range of participants consisting of representatives from the Lowcountry Council of Governments, Beaufort County (Planning and Transportation Engineering), the Lowcountry Regional Transit Authority (LRTA), the Marine Corp Air Station (MCAS), the Marine Corp Recruit Depot (MCRD), and local business developers. The Task Force has been planning for the implementation of the multi-modal transit network described in this proposal for a number of years. The Task Force has a long history of working together to support our community in a variety of ways including collaboration on the Northern Beaufort County Regional Plan and preservation of over 16,700 acres of land as green space in the County through our Rural and Critical Lands Program.

The area municipalities and the County have included the project in their respective comprehensive plans and are enthusiastic about implementation of the project as can be seen from their letters of support that are included in this application. Other public services that support the project include agencies that represent citizens with disabilities, elderly and young people, and people with low incomes.

The strong relationship between the military and the Beaufort community has existed since Parris Island was established in the early 1900s and grew when the Naval Hospital was built during World War II and Marine Corps Air Station Beaufort was established in the 1950s. The relationship among the Department of the Navy, Beaufort County, City of Beaufort, Town of Port Royal and the LCOG stands as a benchmark of collaboration and innovation. Those partners have worked extensively together to resolve the complex issues and often conflicting requirements of sustaining the military mission while supporting growth and development. For example, MCAS Beaufort has partnered with Beaufort County on preserving over 1,200 acres of land for conservation and encroachment purposes since 2004, investing \$4.2 million in 2008 alone. Addressing the mutual needs associated with a multi-modal transportation network is a logical evolution of the partnership. A multi-modal transportation network would improve the quality of life of the marines, sailors and civilians assigned to the installations. The network would also sustain both the mission of the installations and the County's infrastructure. As such, the Marine

Corps, specifically, and the Department of the Navy, as a whole, are unwavering in their commitment to the necessity of developing a multi-modal transportation network.

**Letters of Support:** Letters of Support are provided in Attachment B.

#### **US Government**

- South Carolina United States Senate, Jim DeMint
- South Carolina United States Senate, Lindsay Graham
- Congressman Joe Wilson
- Marine Corp Air Station, Colonel J.R. Snider
- Marine Corp Recruit Depot, Colonel C.D. Henderson

#### **State Government**

- South Carolina Department of Transportation
- South Carolina Department of Health and Environmental Control

#### **Local Government**

- County Council of Beaufort County
- Town of Port Royal
- City of Beaufort
- Lowcountry Council of Governments
- Beaufort-Jasper Water Sewer Authority

#### **Colleges**

- Technical College of the Lowcountry
- University of South Carolina, Beaufort

#### **Health/Social Services**

- Beaufort County Disabilities and Special Needs
- Beaufort County Alliance for Human Services
- ABLE The Disabilities Foundation of Beaufort County
- BJH Comprehensive Health Services
- Beaufort Memorial Hospital

#### **Non-Profits**

- Pathways Connect
- Greater Bluffton Pathways
- Beaufort Chamber of Commerce
- Coastal Conservation League
- Lowcountry Economic Network

#### **Local Businesses**

- Main Street Beaufort, USA
- Bundy Appraisal & Management, Inc.
- Quality Inn
- Ribaut Holdings, LLC
- The Beaufort Inn
- Beaufort Town Center

### **Consistency with Service Needs of Area**

Approximately 21,600 jobs and 20,148 residents are located within ¼ mile of the proposed transit routes and multi-use trail. Currently the only transportation option available to connect these residents and jobs is the private automobile. With this project, these residents will have clear alternative transportation options for commutes to work, for shopping, and for access to services. This project offers diverse transportation options that are effectively integrated in order to provide a high degree of accessibility for all County residents and visitors.

## **Coordination with Other Transportation Modes**

This project is multi-modal in nature and focuses on diversifying the region's transportation choices. In order for a fixed route transit service to be practical and usable in northern Beaufort County, a majority of potential users must be able to walk safely from their homes and work to transit stops. Therefore, this project includes a 6.7-mile section of the 25-mile rail-trail (Phase 1) travels from Port Royal through Beaufort to the Marine Corps Air Station that provides much needed pedestrian and bicycle access to many residents, businesses and employers in northern Beaufort County. The project also includes the construction and reconfiguration of over 13 miles of sidewalks and multi-use pathways to promote network continuity by connecting the trail and transit routes to major employers, retail centers and residential areas.

## **Livability**

### **Project Enhances User Mobility**

Northern Beaufort County's prevailing transportation and land use patterns favor automobile travel and provide relatively inferior alternatives. This project offers diverse transportation options that are effectively integrated in order to provide a high degree of accessibility for all County residents and visitors. Approximately 21,600 jobs and 20,148 residents are located within ¼ mile of the proposed transit routes and multi-use trail. These residents will have clear alternative transportation options for commutes to work, for shopping, and for access to services.

### **Project Provides Broader Mobility through Intermodal Connections**

As stated above, this project is multi-modal in nature and focuses on diversifying the region's transportation choices. The proposed fixed route transit service will serve the major transportation corridors of northern Beaufort County. Complementing the fixed route transit system, another key component to the mobility of this area is the rail-trail for bicycles and pedestrians. Finally, to promote network continuity by connecting the trail and transit routes to major employers, retail centers and residential areas, this project includes the construction and reconfiguration of over 13 miles of sidewalks and multi-use pathways. Each of these components are designed to reach the maximum number of residents, services, businesses, and employment centers

### **Project Improves Transportation Choices and Reduces Congestion**

Providing additional modes of transportation in Beaufort County will not only maximize the efficiency of the region's existing road network, and will also offer transportation alternatives to residents burdened with increasing traffic congestion. There are geographical, environmental, and fiscal constraints to continually expanding the region's road network to accommodate population growth. Because northern Beaufort County is laced with tidally influenced marshes, creeks, and rivers, there are a limited number of lane miles to move automobiles around the region. While some roads can be widened to accommodate additional automobiles, eventually traffic will be bottlenecked at the two crossings over the Beaufort River, and at Battery Creek where traffic is directed either over the Russell Bell Bridge in Port Royal or along Boundary Street in Beaufort. There are over \$73 million dollars worth of projects committed over the next five years to address existing deficiencies

in the road network. However, the Beaufort County Comprehensive Plan projects that even with these improvements, by the year 2025, there will still be 7½ miles of arterials and collectors in northern Beaufort County that will be at a level of service of E or F. The most crucial failure will be at the Woods Memorial Bridge which links Lady's Island, a bedroom community of 12,000 residents, to downtown Beaufort, the Air Station, the Hospital and many other important destinations.



Solving this deficiency with a third river crossing is estimated to cost well over \$200 million.

### **Project Benefits Disadvantaged Populations**

This project will provide much needed transportation choices for those who do not drive or do not own an automobile. One of the disadvantages of relying on a single mode of transportation is the disenfranchisement of the region's most vulnerable population segments – those too old or too young to drive, the disabled, and those living below the poverty level.

#### **Summary of Vulnerable Population Sectors in Project Area**

	<b>1990</b>	<b>2000</b>	<b>% Change</b>
Elderly (75+)	1,207	1,986	64.5%
Young People (10-14)	2,848	3,689	29.5%
Handicapped		7,429	
Low Income (Poverty Level and Below)	5,137	4,978	-3.1%
Households without cars	1,356	1,315	-3.0%

Source: 1990 and 2000 U.S. Census

Public transportation is a lifeline to the economically disadvantaged citizen. For millions of Americans, public transportation provides a cost-affordable means to meet their basic sustenance needs (e.g., employment, medical treatment centers/doctors' offices, shopping, education, paying bills, etc.) Additionally public transportation may be the only means for the economically disadvantaged population to evacuate to a local shelter during an emergency situation, such as a hurricane. As witnessed in New Orleans with Hurricane Katrina, this population segment requires special assistance in hurricane evacuation. Another common concern among human service agencies throughout the region is the inability of their clients to access a means of transportation to get to services often required to sustain their quality of life such as medical appointments, social service appointments for food stamps, child services, etc.



## Coordination of Land Use and Transportation Planning

This project is consistent with the Beaufort County Comprehensive Plan's integration of land use and transportation planning which is currently being implemented through the development of a county-wide form-based code. One of the main goals of the County's future land use chapter is to maintain a distinct regional form of compact urban and suburban development surrounded by rural development delineated by growth boundaries, designed to maximize the efficiency of regional infrastructure and the avoidance of sprawl. Within growth areas, mixed-use developments are encouraged to promote pedestrian access to services and facilities while providing internal trip capture to minimize the traffic impact of these developments. Bike and pedestrian trails are encouraged to link schools, shopping areas, employment and other destinations. Therefore the development of transit service and pathways is a necessary complement to the County's land use policies.

## Project Creates Cost Savings Opportunities for Local Residents

This project provides several opportunities for cost savings to local residents. According to the U.S. Department of Labor's U.S. Bureau of Labor Statistics, the average vehicle costs \$8,003 per year to own and operate. The breakdown of the figure comes to \$3,421 for purchasing the vehicle, \$2,227 in gasoline and motor oil expenses, and \$2,355 in other vehicle-related costs. Northern Beaufort County's current lack of transportation choices means that a majority of households (56%), regardless of income, must own two or more vehicles as a matter of necessity. The availability of transit service and improved pedestrian and bicycle facilities offers greater opportunities for households to shed one or more vehicles thus saving thousands of dollars annually.

## Project Enhances Economic Competitiveness

This project increases the region's economic competitiveness by enhancing two site selection criteria that help boost the attractiveness of the region to potential businesses. According to Area Development, a trade publication covering site selection and relocation, businesses are urged to "pay attention to logistics" with regard to an effective labor force. Reliable public transportation is cited as a beneficial factor in ensuring a dependable and effective labor force.

*This project furthers two of the three primary site selection criteria for businesses – Access to a skilled labor force, and quality of life.*

This project makes our labor force accessible to future employers by giving workers commuting options. This project also boosts the region's quality of life, another important site selection factor. According to the Trust for Public Land, corporations view quality of life as the third most important factor when determining new locations, surpassed only by the availability of markets and a skilled labor force. Additional economic benefits are discussed in further detail under "Job Creation and Economic Stimulus."

**Job Creation:** Economic activity would first be generated from this project in the form of multi-use trail construction activities, sidewalk renovation/repair/creation construction activities, purchase of buses and other capital items, including bathrooms, water fountains, shelters, signage, ITS hardware, benches, lighting, and security call stations. Based on information from the Executive Office of the President Council of Economic Advisors, the estimates for the job-years created by direct government spending indicate that it takes approximately \$92,000 of spending

to create one job-year. With a total project cost estimated at \$24.7 million, a total of 268 jobs are estimated to be created in the short-term during construction. A combination of newly created network related jobs (cafes, equipment rental) and expansion of existing businesses will likely result from this project. Possible activities include bicycle sales, rental, and repair businesses; fishing and small watercraft outfitters to build on the marsh access provided by the multi-use trail trestles; businesses relocating to the region because of the enhanced locational desirability of the area (see “Economic Competitiveness” above); and businesses relocating to the region to take advantage of infill and redevelopment opportunities created by the project.

*268 short-term jobs and 39 long term jobs will be created as a direct result of this project in addition to indirect job creation through increased economic development opportunities.*

### Project Promotes Safe and Healthy Communities

This project promotes safety by giving cyclists and pedestrians alternatives to walking or cycling along the existing roadway network.

**Emergency Access and Evacuation:** The multi-use trail will be used primarily for pedestrian and bicycle traffic, but it will be designed as truly multi-use to serve as an additional route to serve emergency access and evacuation route function. Electronically controlled gates will be added at key points to allow use as a single paved lane for an emergency services route. Ambulances and fire response vehicles could use this path to bypass Boundary Street entirely when answering calls along SC 170 and points south, or to avoid congestion on Boundary Street. The Emergency Medical Services headquarters is located adjacent to the trail for convenient access. The trail could also be used in times of evacuation for flow and contra-flow of emergency vehicles as the primary routes will be congested. In cooperation with Beaufort County Emergency Management, LRTA is responsible for the evacuation of the general public and Marine dependents if they need assistance to local shelters during an emergency. Buses available from the new network could be used to assist in evacuation by adding to the existing fleet.

**Pedestrian Safety:** From 2006 to 2008, 126 people in Beaufort County were injured in bicycle or pedestrian accidents and eight people were killed (see table below). This project will increase pedestrian safety and bring the sidewalk system into better condition. This project will fill existing voids in our sidewalk system, and bring other areas up to current standards.

### Summary of Pedestrian and Cyclist Injuries and Fatalities in Beaufort County 2006-2008

Year	Cyclists		Pedestrians	
	Fatalities	Injuries	Fatalities	Injuries
2006	0	26	3	23
2007	0	20	2	18
2008	1	24	2	15
<b>Total</b>	<b>1</b>	<b>70</b>	<b>7</b>	<b>56</b>

Source: SC Dept. of Public Safety, Office of Highway Safety, Beaufort County Motor Vehicle Traffic Collisions.

**Fitness and Reduction of Obesity:** According to the National Institutes of Health, approximately 65% of all Americans are overweight or obese and at greater risk for heart disease, diabetes, and strokes. More alarmingly, a 2008 study reported that 40% of 3<sup>rd</sup>, 5<sup>th</sup>, and 8<sup>th</sup> graders in the Beaufort County School District were overweight or obese, above the national average of 32% for children and adolescents. Investing in bicycling and walking creates opportunities to re-integrate physical activity into our daily lives.

Public transportation is also ideal for bicyclists and pedestrians to extend the range of their trips. In a July, 2009, a CDC report titled 'Recommended Community Strategies and Measurements to Prevent Obesity in the United States', identified the following measures:

*A 2008 study reported that 40% of 3<sup>rd</sup>, 5<sup>th</sup>, and 8<sup>th</sup> graders in the Beaufort County School District were overweight or obese, above the national average of 32% for children and adolescents.*

- Enhance infrastructure supporting bicycling
- Enhance infrastructure supporting walking
- Support locating schools within easy walking distance of residential areas
- Improve access to public transportation

The call for built environments that support physical activity is echoed in documents from the Center for Disease Control (CDC), South Carolina Dept. of Environmental Health, and local groups such as Eat Smart Move More of the Lowcountry who are working with 23 participating agencies to promote healthy eating and active living behaviors in Beaufort County.

## Sustainability

### Project Promotes Energy Efficiency and GHG Reductions

Beaufort County is on the front line of the climate change crisis. The County is very low-lying and any rise in sea level would place the region in ecologic and economic turmoil. According to the Center for Clean Air Policy, nearly one-third of GHG emissions from the United States come from the transportation sector. Of all the possible actions that can be taken by the public sector to reduce transportation related GHG emissions, reducing VMTs is one action that can largely be implemented at the local level by providing alternative modes of transportation. In 2007, Carter Burgess, Inc., a transportation planning and engineering firm, completed a study on the potential impacts of a fixed-route transit service in northern Beaufort County. Based on the mode share percentages in the study, transit services is projected to result in an annual reduction of 7.9 million VMTs, which means that 340,000 gallons of gasoline and 3,459 tons of GHG

*This project will result in the annual savings of over 340,000 gallons of gasoline and the reduction of over 3,400 tons of greenhouse gas emissions.*

emissions will be eliminated annually. This energy savings has an economic benefit to the region saving residents nearly \$900,000 in gas purchases annually.

### **Project Enhances the Environment**

In addition to the energy saving and GHG emission reductions calculated above, this project will incorporate other features that will enhance the environment. The fifteen electric cutaway buses will be hybrid vehicles, therefore minimizing energy consumption and emissions. The proposed real-time transit signs will be solar powered. Also, Beaufort County has adopted a policy in its Comprehensive Plan that all facilities must receive certification under the U.S. Green Building Council's "Leadership in Energy and Environmental Design" (LEED) program. Therefore, the shelters and trail facilities will meet this standard.

## **Leveraging of Public and Private Investments**

### **Jurisdictional and Stakeholder Collaboration**

This project utilizes \$8.7 million from non-federal funding sources. The Beaufort-Jasper Water Sewer Authority is contributing \$3.5 million through the purchase of the Port Royal Railroad right-of-way and the removal of the railroad ties, rail and ballast. Beaufort County is contributing \$4.6 million to this project by providing much needed pedestrian and bicycle facilities on SC802. Finally, \$617,000 is being provided in private land donations for a transit transfer center and a trail head for the multi-use rail trail. For more details on the local match and supporting documentation, see pages 9 and 10 and **Attachments A1 and A2**.

### **Disciplinary Integration**

There is a broad base of support for this project that includes the major employers of northern Beaufort County, health care providers, social service agencies and environmental groups (See **Attachment B** Letters of Support). The major employers recognize that the provision of regular transit service and better pathways and bicycle facilities will have a positive impact on employee reliability and productivity. Beaufort Memorial Hospital, in addition to being a major employer, understands the positive impact that less sedentary transportation options will have on public health. Beaufort County's social service agencies recognize that a lack of transportation choices creates barriers to employment and services for their clientele. Finally, the SC Coastal Conservation League understands that public transportation and an integrated pathways network are key components of the region's ability to achieve sustainable growth while minimizing impacts on the environment.

## **Project is Ready to Implement**

### **Compliance with the National Environmental Policy Act (NEPA)**

Beaufort County will begin an Environmental Assessment as part of the design phase of this project. On Dec. 1, 2009, an initial investigation of the Port Royal Railroad right-of-way was conducted for use as a multi-use trail by Geordie Madlinger, Wetlands Section Project Manager, Ocean and Coastal Resource Management, and members of the Beaufort County Planning Staff. Some areas were noted that would require 'Maintenance & Repair' of existing drainage structures. A Maintenance &

Repair request does not require a permit. Results of a casual inspection of the bridge spanning Battery Creek resulted in the conclusion that it was sound enough to use as a bike and pedestrian pathway. When the Engineering and Design work is completed for the rail trail, an OCRM/Army Corp permit can be submitted. Approval for this permit is estimated to be a three month process. In addition, a Phase II Environmental Site Assessment was completed on behalf of Beaufort Jasper Water Sewer Authority (BJWSA) on January 9, 2007 of the 25-mile rail corridor between Yemassee and Port Royal.

### **TIP/STIP Amendment – State Endorsement**

As mentioned above, this project is being submitted as part of a consolidated application coordinated by the South Carolina Department of Transportation (SCDOT) on behalf of rural applicants with proposals that meet the basic principles that establish the foundation for the USDOT and Department of Housing and Urban Development, and Environmental Protection Agency partnership for sustainable communities.

### **Local Share is in Place**

Documentation of the local match is provided in **Attachments A1 and A2** and further described on pages 9 and 10.

### **Funds Can be Obligated and Implemented Quickly**

Upon receipt of FTA funds, within the 2<sup>nd</sup> quarter an RFP can be issued for the vehicles, shelters, and signage. The anticipated delivery date would likely be in the 4<sup>th</sup> quarter. The timeline for the multi-use trail and pathways is provided on page 9.

### **Ability to carry out the Proposed Project Successfully**

The Capacity for Beaufort County, the grant recipient and Palmetto Breeze, the agency that will own and operate the proposed transit service and facilities is provided on page 1. Operation and maintenance of the transit service will be supported through a number of funding sources including contributions from businesses, universities, local governments, and other grant opportunities. Specifically support for this project comes from Beaufort Memorial Hospital, the University at South Carolina Beaufort, Technical College of the Lowcountry, the military bases through the Transportation Incentive Program (TIP), as well as a multitude of human service agencies that are moving toward coordinating and/or consolidating transportation services through the Lowcountry Regional Transportation Authority through the mobility management program we have underway throughout Beaufort County and the region. This project would allow for human service agencies to turn over their transportation needs to the Authority and reimburse the Authority for the transportation of their clients to make a more efficient, cost effective transportation system. Additional grant sources available may be through section 5311, Rural Transportation Program, Section 5310 – elderly and Disabled Transportation assistance Program, Section 5316 – Job Access and Reverse Commute Program, and Section 5317 – New Freedom Program, as well as from Accommodations Tax funding for visitors usage of the services to area destinations including the use of public transit to the United States Marine Corps Parris Island Graduation and Reunion events, Main Street Shopping, Waterfront Park, etc.